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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,846	12/03/2001	Khuy V. Nguyen	2000.83	1022
29494	7590	09/29/2004		
ROBERT H. HAMMER III, P.C. 3121 SPRINGBANK LANE SUITE I CHARLOTTE, NC 28226			EXAMINER	CHANG, VICTOR S
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/005,846	NGUYEN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Victor S Chang	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 19 July 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-11 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-11 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

### ***Introduction***

1. The Examiner has carefully considered Applicants' remarks filed on 7/19/2004.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Rejections not maintained are withdrawn. In particular, Applicants' argument that Callahan does not qualify as a prior art reference under 35 USC 103(C), because both the instant invention and Callahan USP 6,602,593 are owned by assignee Celgard is persuasive, as such the rejection in section 4 of Office action dated 4/21/2004 is withdrawn. However, while overcoming the art rejections set forth in the last Office action, an additional search is required, and it yielded a new reference. The new reference is found to anticipate and/or render obvious the instant claimed invention. Applicant's comments regarding the prior art are moot in view of the new grounds of rejection.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

mechanical strength of a membrane" renders the claim language incomplete, because it is unclear that how does merely "providing" a microporous sheet improve mechanical strength of a membrane? Please clarify what manipulative steps are performed on the membrane to improve it, and where are the elements of the membrane to be improved?

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-017694 (computer translation).

JP '694 is directed to obtain a microporous polyethylene membrane which can be desirably used as a battery separator. The membrane comprises polyethylene (aliphatic polyolefin), and may be a blend with at most 30% EPR, etc. (Abstract).

For method claims 1-3 and 6-8, they essentially mirror the product claims 9-11 and employ only a conventional method step, i.e., "providing". As such, they are also rejected as set forth above.

Claims 1-3 and 6-11 lack novelty.

7. Claims 4 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-017694 (computer translation).

The teachings of JP '694 are again relied upon as set forth above.

For claims 4 and 5, JP '694 is silent about the Gurley value of the microporous membrane. However, since JP '694 teaches the same subject matter (battery separator) as the instant invention, it is the Examiner's position that a suitable Gurley value is either anticipated by JP '694, or an obvious optimization to one skilled in the art of battery separator, motivated by the desire to obtain a suitable microporous membrane for separator application.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition, the following references are cited of interest for making microporous battery separator.

US 4923650 to Antoon, Jr. et al. is directed microporous film suitable for battery separator application (Abstract.), and Antoon expressly teaches that a blend of polypropylene with ethylene-propylene copolymer can be processed more readily than a similar composition which contains polypropylene as the sole polymer for making the battery separator (column 3, lines 29-34).

US 4975469 to Jacoby et al. is directed to an oriented microporous films suitable for battery separator application (column 10, lines 45-46). Jacoby expressly teaches that blends of propylene homopolymers with ethylene-propylene copolymers, etc., can be used for making the microporous films.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*VSC*

Victor S Chang  
Examiner  
Art Unit 1771

9/16/2004



TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700